Product recalls: can advanced coding systems help mitigate the risks?

In the food and beverage industry, expectations of quality are justifiably high across the board, and coding and marking is certainly no exception. Regulatory authorities globally are demanding ever more accurate on-pack coding and information, and brands and consumers are likewise demanding the same.

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Manufacturers have no choice but to acknowledge these demands and it is in their best interest to do so.

In a recent survey carried out by Videojet, it was revealed that upwards of 70% of coding errors can be attributed to operator error, and these errors can have a huge impact on a business, both financially and in terms of reputation – which are of course inextricably linked.

Incorrectly coded products entering the retail supply chain can have very serious consequences. Firstly, and most importantly, there is the risk to consumers. Allergen information may be incorrect, for example, which could lead to serious consumer health risks.

If best before dates are incorrectly applied there could be instances of product going beyond the point at which it is safe to consume, further endangering public health.

Secondly, from a business perspective, regulators can impose huge penalties and fines for incorrectly labelled products. The negative effects a recall would have on the trust consumers have in a brand can be even more costly.

In high profile cases where products have had to be withdrawn, sales figures have become depressed not only due to product being temporarily unavailable, but because consumers have chosen to switch away from a brand due to a lack of trust.

Negative reports can spread quickly, particularly given the access to social media outlets in today's digitally driven world, and can be very difficult to contain once they enter the many and varied platforms available.

In instances where a product has not reached the retail supply chain, coding errors still have the potential to cause major financial damage. The costs associated with scrapping or reworking products that have been incorrectly coded have a direct impact on manufacturers' bottom lines, and can be avoided using advanced coding and marking systems in conjunction with code assurance software.

Taking a proactive approach to code assurance

In another survey carried out by Videojet, many Fast-Moving Consumer Goods (FCMG) companies reported experiencing coding errors on a regular basis – some as frequently as once a day. To reduce these instances, or eliminate them altogether, a number of steps can be taken.

Retraining staff and performing cross checks ahead of committing to a job is a common response. However, in order to make a real impact, one should embrace solutions that deliver automated accuracy, at the same time reducing the risk of human error through decreased interaction.

This is where advanced software enters the equation. Since the majority of coding errors occur as the result of incorrect job selection or code entry, removing the most important elements of this process from the operator makes a significant difference.

We acknowledge that removal of the operator altogether is not possible, but it is feasible to restrict their input to predefined formats and content choices, thereby reducing the risk for error.

Predefined coding rules automate much of the message creation process, minimising day-to-day operator input while ensuring that any necessary operator interaction complies with policies and logic that pertain to the specific job.

To facilitate this, the user interface of the printer can be designed with several features, including smart settings that ensure use-by and sell-by dates are linked correctly. For example, when a sell-by date is selected the correct use-by date can be automatically generated.

Data can also be restricted to drop-down lists to prevent incorrect key presses and required fields can be prompted before allowing an operator to commence a job.

Message creation can also be removed from the production floor entirely, moving the task to a central location where an accountable person with the requisite training can take responsibility away from the bustle of the production environment.

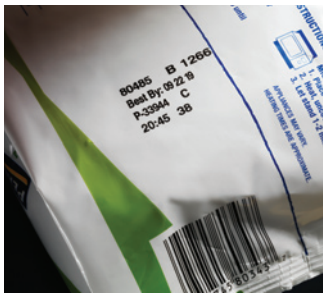
Which technology is right for your business?

Code assurance is rendered ineffective if the code technology is not optimised for the packaging material and production environment. It is critical that the correct application for your products be selected from the outset. To achieve this, working with an expert supplier is highly recommended, as they will be able to provide guidance throughout your project.

First, an understanding should be gained of how a line is operating before extensive testing is carried out on packaging substrates. Then determine whether a laser is preferable over a continuous inkjet printer (CIJ), for example, or which ink will best suit the package.

For packaging formats such as bags and pouches, cartons, jars, tins and cans the choice is often between CIJ, Thermal Transfer Overprinters (TTO), Thermal Inkjet (TIJ), and laser printers. CIJ is a fluid-based application that enables non-contact printing of up to five lines of text, linear and 2D bar codes, or graphics, printed on a variety of packaging types, including stationary packaging via traversing systems.

Numerous food grade inks have been developed to ensure regulatory requirements can be fulfilled without compromising on code quality, and fluids that are capable of



withstanding high temperatures are also available. Laser coders do not use consumables and work by removing a layer of substrate to create a code or mark.

In addition to CIJ and laser, TTO and TIJ technologies are also available. TTO is popular for printing on flexible films and can produce high resolution codes without the use of solvents – a popular benefit in both the food and beverage sectors.

TIJ is more prevalent where cartons are used and provides high resolution ink-based printing with a compact design. This enables simple integration into lines where space is at a premium.

Finally, for outer case labelling there are large character marking (LCM) and label print and apply (LPA) applications. Both can create high quality codes designed to withstand the rigours of the supply chain.

Where product recalls are required for any reason – a contaminant may have been found in a certain batch, for example – these secondary codes are critical for locating products quickly along the supply chain.

While training of production line staff can go some way towards mitigating the risk of a code-related product recall, a move towards automation will almost certainly provide a far higher level of peace of mind – as well as a clear trail of events in terms of production line data.

Code assurance is the key and through adopting a combination of highly advanced software and high-quality coding and marking equipment, manufacturers can be confident that their codes will not let them down. ■